CLAIMS

1. A protective film for polarizing plates which comprises a thermoplastic film having a photoelastic coefficient of 9.0×10^{-12} Pa^{-1} or

5 smaller and a saturated water absorption smaller than 0.05% by weight and an antireflection layer formed by alternately laminating high refractivity layers and low refractivity layers at least on one face of the thermoplastic film and having a reflectance of 0.5% or smaller at a wavelength of 550 nm and has a standard deviation of S of 0.3 or smaller,

10 wherein the standard deviation of S is obtained by obtaining a reflectance $R(\lambda)$ at a wavelength λ in a region of wavelength of 380 to 780 nm while the wavelength λ is successively increased by an increment of 1 nm from 380 nm to 780 nm, calculating S in accordance with relation (1):

$$S = \sum_{\lambda=380}^{780} \Delta\lambda \cdot R(\lambda) \qquad \cdots (1)$$

15 which gives a sum of products of the reflectance $R(\lambda)$ at a wavelength of λ and the increment of the wavelength between two successive measurements of the reflectance $\Delta\lambda$ (=1 nm), and calculating the standard deviation of S obtained at 10 points randomly selected within an area of 100 cm^2 on a surface of the film.

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2. A protective film for polarizing plates according to Claim 1, wherein the antireflection layer is a layer formed at least on one face of the thermoplastic film while the thermoplastic film is brought into contact with a thermally conductive material having a surface temperature higher

25 than [a glass transition temperature of the thermoplastic film - 130°C]

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and lower than the glass transition temperature of the thermoplastic film.

3. A protective film for polarizing plates according to Claims 1or 2, wherein the antireflection layer is a layer formed in accordance with a physical vapor deposition process or a chemical vapor deposition process.

4. A protective film for polarizing plates according to any one of Claims 1 to 3, which further comprises at least one hard coat layer.

5. A protective film for polarizing plates according to Claim 4, wherein the hard coat layer has an average surface roughness of 0.5 μm or smaller.

6. A protective film for polarizing plates according to any one of Claims 1 to 5, wherein an outermost surface of the thermoplastic film at a side having the antireflection layer has an electric resistance of 1×10^9 $\Omega/\square$ or smaller.

7. A protective film for polarizing plates according to any one of Claims 1 to 6, wherein the thermoplastic film is a film comprising a polymer having an alicyclic structure.